

PITTIER³¹ has published a revision of the Mexican and Central American species of *Lonchocarpus*, recognizing 40 species, 24 of which are described as new. He also describes 4 new species of the same genus from South America.

SMALL³² has described a long known but unstudied tree cactus of the Florida Keys as a new species (*Cephalocereus Deeringii*). It had been "assumed to be identical with the species of *Cephalocereus* long known to grow on Key West."

SMITH,³³ in a first paper of a series of studies of *Lupinus*, describes a new species (*L. subvexus*) from California.

SWINGLE³⁴ has described a new genus (*Pamburus*) of Aurantiaceae related to *Citrus*. It is a native of India, and as yet includes only the type species *P. missionis*, which is *Limonia missionis* Wight. The same author³⁵ has also described *Pleiospermium* as another new genus related to *Citrus*, founded on *Limonia* Wight and Arn., and including two species.—J. M. C.

Embryo sac and embryo of Phaseolus.—Miss BROWN³⁶ has described the details of the development of the embryo sac and the embryo of *Phaseolus vulgaris*. The only previous study of this genus was by GUIGNARD in 1881, in his general work on Leguminosae, in which *P. multiflorus* is described. The details for *P. vulgaris* introduce no unusual situation, but it is valuable to know the facts in reference to so conspicuous a species.—J. M. C.

Fruit drop.—HODGSON³⁷ believes he has found a correlation between the June drop of the Washington navel orange and the daily fall in water content of the fruit and foliage. He says, "inasmuch as in the case of certain other plants the abscission of young fruits has been shown to be due to abnormal water relations, it is suggested that such may be the case here."—WM. CROCKER.

³¹ PITTIER, HENRY, The Middle American species of *Lonchocarpus*. Contrib. U.S. Nat. Herb. 20:37-93. pls. 6. figs. 43. 1917.

³² SMALL, JOHN K., The tree Cacti of the Florida Keys. Jour. N.Y. Bot. Gard. 18:199-203. pl. 206. 1917.

³³ SMITH, CHARLES PIPER, Studies in the genus *Lupinus*. 1. A new species of the subgenus *Platycarpus*. Bull. Torr. Bot. Club 44:405, 406. 1917.

³⁴ SWINGLE, WALTER T., *Pamburus*, a new genus related to *Citrus*, from India. Jour. Wash. Acad. Sci. 6:335-338. 1916.

³⁵ ———, *Pleiospermium*, a new genus related to *Citrus*, from India, Ceylon, and Java. Jour. Wash. Acad. Sci. 6:426-431. 1916.

³⁶ BROWN, MABEL MARY, The development of the embryo sac and of the embryo in *Phaseolus vulgaris*. Bull. Torr. Bot. Club 44:535-544. pls. 25, 26. 1917.

³⁷ HODGSON, R. W., Some abnormal water relations in *Citrus* trees of the arid southwest and their possible significance. Univ. Calif. Publ. Agric. Science 3:37-54. 1917.